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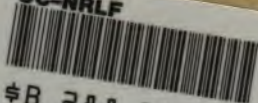
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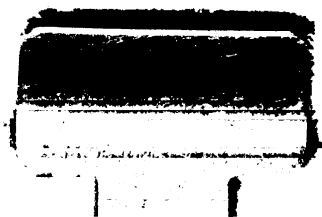
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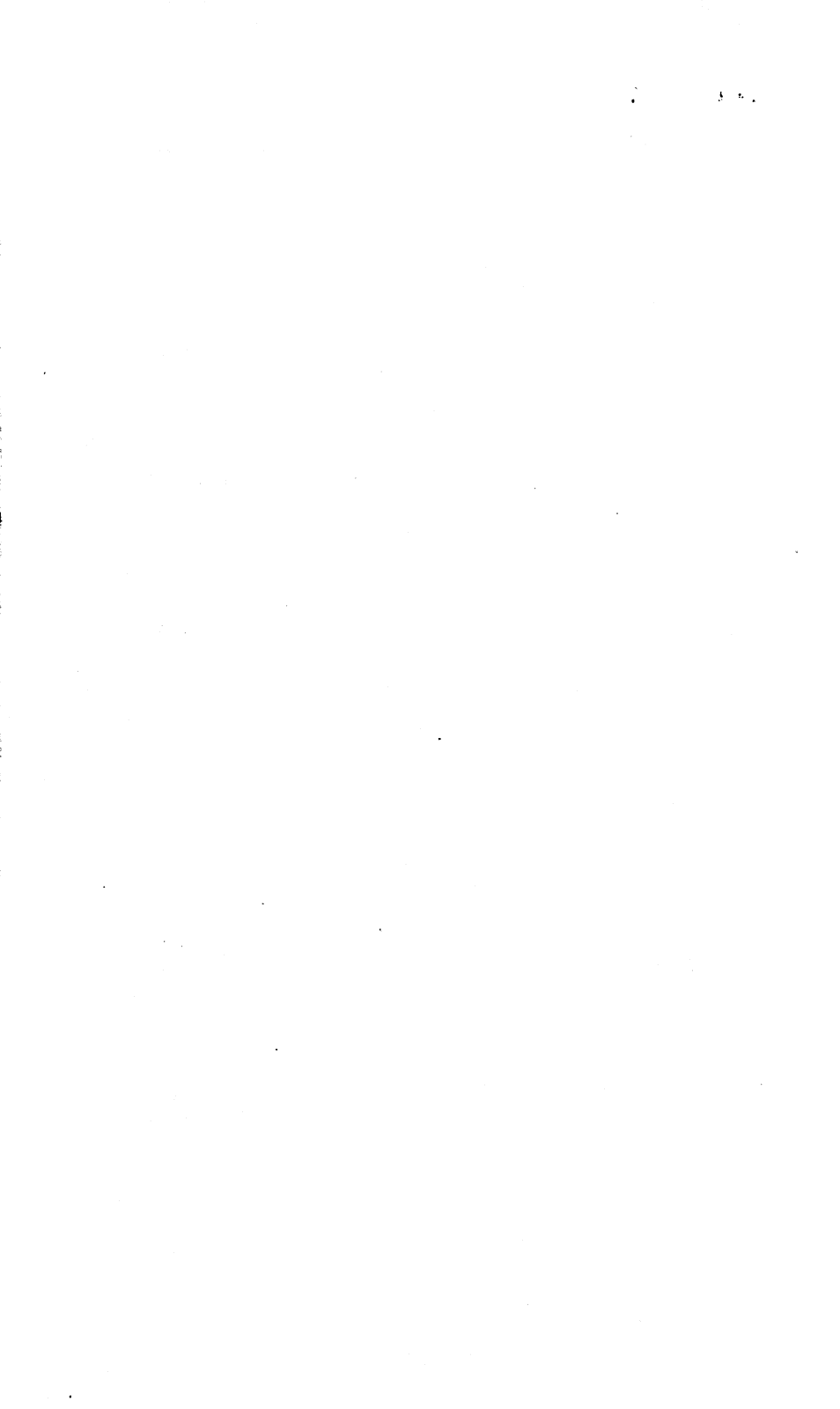


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DOCUMENTS







10th Congress. House of Representatives.

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DOCUMENTS REVIEW

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OF THE

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MINORITY REPORT,

ON THE

NAVY YARD QUESTION,

WITH AN APPENDIX,

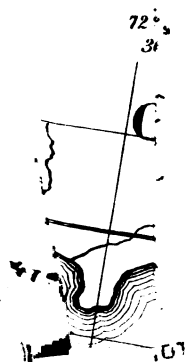
CONTAINING LETTERS FROM

Maj. General John A. Dix, Gen. Prosper M. Wetmore,
Mr. Donald McKay, and Professor Silliman.

NEW LONDON:

STARR AND FARNHAM, PRINTERS, CORNER STATE AND MAIN STREETS.
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A REVIEW
OF THE
MINORITY REPORT,
ON THE
NAVY YARD QUESTION.

To the Hon. the Senators and Representatives of the United States in Congress assembled, the following Review and examination of the Minority Report, is most respectfully addressed.

THOS. W. WILLIAMS, Chairman

New London Navy Yard Com.

NEW LONDON, Dec. 15th, 1863.

When a great question involving important public interests is brought before the nation for decision, it is meet that it pass the ordeal of a strict and thorough investigation.

The location of a new Navy Yard, presents such a question at this time.

A board of officers appointed under act of Congress, to examine and make report as to the comparative fitness of the several sites named for the purpose, have done so, and made report in favor of New London, Conn. Two, however, of the board, dissenting from the opinion of the majority, have given their own views in a minority report, which it is proposed here to examine.

It may be proper to say that the organization of the board by Secretary Welles, was calculated at the outset, to awaken apprehension on the part of the friends of New London, he

having seen fit to appoint on the board, three (one half of its number,) who were citizens of Philadelphia, and not one from the State of Connecticut, or even from New England. See pamphlet entitled "Navy Yard at New London," in which this and other facts are set forth.

In the authors of the Minority Report (Prof. Bache and Capt. Marston, both of Philadelphia,) we might expect to find a strong tincture of local prejudice in favor of their native city, but this does not account for the numerous errors, inconsistencies and contradictions with which it will be seen the Report abounds.

After having named among the requisites for a complete naval establishment, "facility of ingress and egress," and having claimed page 13th, for both places, (League Island and New London) "entire facility of ingress and egress," on page 14th they say "with iron clads a harbor easy of access is the last to be desired for a great yard." Again, when speaking of Narragansett Bay (the resolution in reference to which was adopted by the board "*without dissent*") we read, page 25th, "The advantages of Narragansett Bay for a Navy Yard are * * * that it is easy of ingress and egress, &c."

Again, "a moderate range of tide" is spoken of as an *advantage* at Narragansett Bay, page 25th, while on page 16th we read that "the six feet rise of tide at Philadelphia, is an advantage over the two-and-a-half feet at New London."

Which are we to believe?

But the following explanation may remove the difficulty. Without an extra rise of tide the waters of the Delaware would be so shallow that large vessels could not navigate that river. In this view it may be an advantage, but is a moderate range of tide a disadvantage, where the depth of water is ample, as at New London? Hear what the majority report says on this same point.

"The range of tide at New London is 2.5 feet, and at League Island 7.5 feet. On this point New London has the advantage, there being less than one half the range of tide."

But we know not how to explain the following. The minority say, page 15th,

"League Island has the advantage of Winthrop's Point, in less exposure to violent winds and sea, and Winthrop's Point has the advantage in less exposure to ice, though the first is one of constant action, and the other one which takes effect once in forty years."

We think the authors of the report display either a want of candor or an ignorance of the fact which was not to be expected in them, when they say that "Winthrop's Point" is exposed "to violent winds and sea," or that ice "takes effect" (in the Delaware) but "once in forty years." Is the site at Winthrop's Point exposed "to violent winds and sea"? Its very topography as the Minority Report itself shows, proves this to be impossible. We quote from page 18th.

"Above Winthrop's Point (meaning at the promontory about two and a half miles above) the river suddenly widens from a little over a quarter to a little over half a mile in width, and contracts again at Winthrop's Point to a little over 3-16 of a mile."

Here we see is an inland lake, as it were, the proposed water site for the Navy Yard, about two and a half miles in length and a little over half a mile in width, narrowing at one end to 3-16 of a mile and at the other end to a little over a quarter of a mile, divided from the harbor proper of New London, which extends some four miles below this Point to the river's mouth, by so small an entrance, with a shore on all sides of it, except for the spaces named above. Is it possible that such an expanse of water, thus environed should be greatly exposed to "winds and sea"?

We say that it is not possible, and the majority in their report say that it is not. Hear what they say, page 4th. "The harbor of New London is well protected from violent winds and sea, and is not obstructed by ice."

This is in accordance with the fact and with previous government reports on the subject. The harbor proper of New London, extends from below Winthrop's Point to the mouth of the Thames, a distance of about four miles, being a much larger extent of water, and thus more exposed to "violent winds

and sea" than the water site for the Navy Yard, situated above Winthrop's Point, and which has been described. Yet as early as 1800, "still water in harbor" is spoken of as among its good qualities. Com. John Rogers, in command of one of our Frigates, wintered here in 1809-10 and gave as proof of its excellence, that "he rode all winter to a single anchor with a condemned cable," and still later in 1837, we find it thus described in "American State Papers, Military Affairs, page 766." "New London offers in the Roads of the Thames a safe and land locked harbor, and first rate vessels can sail up this stream, which never freezes, to five and a half miles above the city."

But why should we attempt to prove familiar facts, taught in our geographies, "what every school boy as well as every sailor knows," and on which no one except the authors of the Minority Report, we venture to say, have ever cast the shadow of a doubt?

But we are not more astonished at this discovery of "exposure to violent winds and sea" than we are at another made by the same parties, in the language before quoted, concerning ice in the Delaware, viz: that it "TAKES EFFECT ONCE IN FORTY YEARS." If it were necessary to reason at all upon this statement, we would ask, why then is insurance on vessels entering the Delaware doubled on account of ice for more than three months in every year. See letter of Chas. Dennis, Esq., Vice President of Atlantic Mutual Insurance Co., in pamphlet entitled "Navy Yard at New London," page 22, from which the following is an extract. "The premium on risks (which enter the Delaware from New York in December, January, February, and a part of March,) is increased one hundred per cent. and from Europe to Philadelphia, is increased about twenty-five per cent. This increase is exclusively owing to ice in the Delaware."

We would ask why it is that every year we hear of more or less vessels being damaged or cut through and sunk by floating ice in the Delaware river and bay?

What means the following from the Report of the Philadelphia and Reading Railroad Co., Nov. 30, 1862?

"With a view to avoid this impediment, (ice in the Delaware river,) an agreement has been made with the Philadelphia, Wilmington and Baltimore Railroad Co., to construct a large Pier in the Delaware river, at New Castle, (thirty miles below League Island,) where the river is navigable at all seasons."

We would ask what has broken down the Piers at Chester, Marcus Hook, New Castle, and especially at Reedy Island, forty miles below League Island, where Piers were built expressly to protect vessels from ice? The ice has swept them all away, so that there is not one of them out of water at Reedy Island.

Why did the Government after building a breakwater to form an artificial harbor at the mouth of the Delaware Bay, (in which experienced mariners say more vessels are lost than in any other harbor along our coast,) build an Ice Break 500 yds. long, but to protect vessels from ice?

Why are the Light Boats and large Buoys removed every fall from their stations in the lower part of the Bay?

Because it is feared they cannot be kept on their stations on account of ice.

Why is it often both difficult and dangerous to attempt getting even as far as the Breakwater toward Philadelphia, by reason of ice found drifting twelve and fifteen miles outside of the capes?

And why have merchants always made arrangements to have their vessels (especially large ones,) absent from the Delaware during winter, and their voyages so calculated that they may arrive in the spring?

It is that if they stay at Philadelphia too late in winter, they may be frozen in, and the use of them lost. Or should they arrive during winter, in the Delaware, they might be lost or damaged by ice.

As the authors of the Minority Report appear to be so imperfectly informed on this subject, they will pardon us for saying that a thousand testimonies like the following might be had from captains, pilots and seafaring men, acquainted with the navigation of the Delaware river in the winter season.

Capt. Joab B. Jeffery, formerly Pilot of the Revenue Cutters Ewen and Madison, and for eight years Boat-keeper and Inspector, at the Custom House in this city, thus certifies.

NEW LONDON, Dec. 29th, 1862.

I, Joab B. Jeffery, of the city of New London, having for forty-five years followed the sea as my only business, and having followed the coasting business between this place and Philadelphia, for eight years, do certify, that in running between this place and Philadelphia, I have always had a great deal of difficulty in getting up and down the Delaware river in the winter season, on account of ice. I have been detained from two to three weeks at a time by the ice. I have known the Delaware blockaded with ice further down than Reedy Island. There was no getting up or down the river except upon the ice. I have known this to be the case several different winters. The navigation of the Delaware river is very bad from Cape Henlopen up to Reedy Island, on account of its being full of shoals, and having a bad channel. I have never known any damage or difficulty from ice in New London harbor.

JOAB B. JEFFREY.

The following is from Capt. Giles Bailey, whose large experience in maritime matters entitles his testimony to very great weight.

NEW LONDON, Nov. 24th, 1863.

In the spring of 1843, being at Montevideo, I was on board the ship Talbot, Capt. Storer, which loaded at Philadelphia, during the winter of 1842-3, for Montevideo and China. The Capt. then told me that he came near losing his ship in the Delaware. The Ice cut through the stem and planking of the bows of the ship, but by constant labor night and day, and keeping heavy timber hung over and around the bows, and replacing them when torn away, and the ship being lumber loaded, she was prevented from filling and sinking. As it was, she was detained a considerable time for repairs. In 1848 I saw a schooner loaded with coal, sunk near Chester, by the ice. The loss of vessels from this cause is frequent in the Delaware river and Bay. When engaged in the freighting business I have had charters offered to go to the West Indies and back to different ports in the United States, and when the return port was to be Philadelphia, and the arrival there likely to occur any where from December to March, I have uniformly refused such charter, and have known others to refuse them, because it often happens that vessels are detained for weeks in the Delaware River.

As my attention has been called to the statement made in the Minority Report, that ice in the Delaware "takes effect once in forty years," I herewith send you the names of some of the vessels which have been lost in that River and Bay within the last ten or twelve years.

- 1850. British barque Blithwood, driven ashore, cut through, and lost in Bay.
- 1856. Brig Evergreen, lumber port stove in, and lost in Delaware Bay.
- " Ship Tigress, stove in and lost in Delaware River.
- 1858. Brig May Queen, lumber port stove in and lost in Delaware Bay.
- 1861. Ship John Truck, cut through and sunk after reaching the wharf at Philadelphia.
- 1862. Sch. Mary J. Brayton, of Providence, with 170 tons gas coal, was cut through by ice in the Delaware Bay, on the 22nd of Dec. and sunk.

GILES BAILEY.

To the New London Navy Yard Committee.

We would call attention to the following statement by Mr. Zebulon Briggs of this city, who for several years manufactured all the oakum used at the Philadelphia Navy Yard, and from 1837 to 1850, for the Navy Yard at New York, and which was sent from there to all the Navy Yards in the United States.

NEW LONDON, Dec. 3, 1863.

SIR,—In the month of November, I think in the year 1842, I received a letter from Com. Reed, Commandant of the Philadelphia Navy Yard, urging me to forward the oakum for the frigate Raritan, (made from stock sent to me from the Philadelphia Navy Yard,) before the Delaware river closed.

Z. BRIGGS.

Hon. THOS. W. WILLIAMS, Chairman Navy Yard Com.

Let us now see what objections the ice in the *immediate vicinity* of League Island would present to the establishment of a Navy Yard at that place We quote from the majority Report, page 6.

"Upon the breaking up of the ice in the Horse Shoe, where all admit that it accumulates, it must be thrown with great violence toward League Island, to the great detriment and danger of all vessels lying in the vicinity."

We think we have shown conclusively that ice "takes effect" oftener than "once in forty years," in the Delaware. But we will give the gentlemen of the Minority the benefit of the following explanation, if such it be.

They say, page 22

"The river being closed, during the whole winter, to below League Island, but once in forty years, on an average."

So we have the Delaware river, by their own showing, "clo-

sed during the whole winter, once in forty years." But they immediately add,

"The Ice Boat suffices to keep it open in the hardest winters."

How does this compare with the statement made page 15th.

"The Ice Boat is with *rare exceptions* of extremely cold winters, say once in forty years, able to keep the Delaware open."

It will be seen that no notice is taken in the Report, of casualties to vessels from drift ice, which is the prolific cause of nearly all the disasters occurring from ice in the Delaware. When the river is entirely frozen over so as to prevent even the attempt at navigation, no injury is done to vessels by the ice of course. The ice merely lays an embargo on them. That the authors of the Minority Report may have the full benefit of what they have said on the subject of ice, we quote the following for all that it is worth.

"By the meteorological registers kept at Philadelphia, it appears that a sufficiently cold winter to close the Delaware occurs but once in ten years, and that the river is closed but once in *forty years*."

A wonder of nature is the Delaware! which accounts perhaps for much that the Report says about it. Not to be closed but once in forty years, although the weather is cold enough to close it once in ten. Surely no other river would be so accommodating! Here we leave the ice question if there is any thing left of it.

The Report says, page 15,

"A water front of a mile, which is more than sufficient for the wants of a first-class establishment, and all its appurtenances, may be had at either place."

But it immediately adds,

"The area of anchorage for large vessels off Winthrop's Point, and for a mile above, is but one-third that of League Island, the latter having in this respect, very great (three-fold) advantage."

But why limit the anchorage to a mile of front? From Winthrop's Point to the promontory above near Smith's Cove, is two and a half miles, (and this was spoken of as the probable extent of the Yard,) and there is good anchorage for vessels of largest size, in the Thames river for six miles above Winthrop's

Point; and below it lies the harbor proper of New London, extending about four miles to the mouth of the river. Here is an area of water in which a convoy of perhaps a thousand ships might be anchored at the same time in perfect safety.

The New London Daily Star of December 2nd, 1863, has the following which we copy as showing what a rendezvous New London harbor affords for vessels in rough weather:

Nearly two hundred vessels anchored in the harbor last night. The steamer *City of Hartford* was unable to cross the bar at the mouth of the Connecticut river, on account of the rough weather, and put into our harbor.

Has League Island a three-fold advantage as to area of anchorage? Within eight miles of the Thames, too, is Gardiner's Bay, which has room enough for any number of vessels.

Again the minority say:

There is ample water both at League Island and New London for most of the vessels of the largest class of our Navy."

At New London there is ample water for all.

The Report proceeds:

"The *Wabash*, fully equipped and armed, drawing twenty-three feet, has come up the Delaware to the present Navy Yard, and gone to sea thence."

But the Report does not state the difficulties which that vessel had in getting to sea, of which we happen to have some knowledge.

From the New London Daily Star of August 6, 1862, we extract the following on this subject:

"While the United States Frigate *Sabine*, Commodore Ringgold, which entered our harbor a few weeks since without casting a lead, and the French ship *Guerriere*, Capt. La Parouse, are quietly lying abreast of our city, each vessel drawing about four fathoms of water, the pilot of the *Great Eastern*, who was employed to take that vessel from Montauk to Flushing Bay and back to the ocean, informs us that he could easily bring the *Great Eastern*, which draws about thirty feet, into our harbor, and from what we know of its soundings, the same vessel could be floated up the Thames some distance above the city.

We are led to these remarks in consequence of a letter received in this city yesterday, from a party on board the United States ship *Wabash*, which sailed from Philadelphia a few days since, containing the information that they were at anchor off Newcastle, waiting for the tide, and that they should probably be obliged to anchor three times more before reaching water of sufficient depth

*Hope's Office - is on Delaware
and above Island -*

*There is no difficulty
in getting the
vessels in or out of the
harbor in rough weather
with the
aid of the
tugs and about
thirty fathoms
of water.*

to float her along at low tide. The Wabash, as we were informed by one of her officers some time since, draws but twenty-three feet.

The ship Guerriere spoken of above, as we learned from her commander, draws 28 feet of water.

But the Wabash which draws only 23 feet, was obliged to anchor in the Delaware and wait for the tide to rise, three times after leaving Newcastle, thirty miles below League Island.

The following from the New York *Tribune* tends to throw light on the whole question, and the dangers which the Wabash experienced in the Delaware at an earlier period.

"The Liverpool and Philadelphia Steam Ship Company had to stop sending their Steamers there, (Philadelphia) chiefly because they could not get inside the lights in severe frosts, and often suffering severely from the inconvenience of shallow water. **SHOULD NOT A NAVY YARD BE ACCESSIBLE TO LINE-OF-BATTLE-SHIPS AND FRIGATES AT ALL TIMES?** *We were near losing the Wabash in Philadelphia waters some years since, her draft of water being too great.*" *What Frash*

We earnestly call attention to this most important point, viz: the inadequate depth of water in the Delaware River. English and French Ports are not limited as to the depth of water, and the largest of their iron-clad ships of war draw from twenty-six to twenty-eight feet. How shall we compete with them and other nations, if we have not like facilities for building and bringing into service, or sending abroad upon the ocean vessels of equal draft and size? If the Wabash which draws but twenty-three feet, finds such difficulty and detention in reaching the ocean from Philadelphia, must it not be the height of folly to think of constructing a fleet of iron-clad national ships at any point on the Delaware River? They would answer no purpose except perhaps that of stationary forts near the sites where they might be constructed. They could never go to sea in the deepest water which the Delaware river affords. Whereas at New London on the river Thames, and for several miles above the city even, there is ample depth of water for vessels of the largest class, the Great Eastern not excepted.

We quote again from the Report page 15:

"The space to the Railroad back of Winthrop's Point is but sixty acres

it is not a good idea to build a ship yard here. The ships even in the Delaware could not get into New York. It is not a good idea to build a ship yard here. The ships even in the Delaware could not get into New York. It is not a good idea to build a ship yard here. The ships even in the Delaware could not get into New York.

They draw I think 25 1/2 feet

and to turn the Railroad would be costly. * * * One hundred and fifty acres is the least quantity of land needed for such an establishment as we suppose is contemplated by the Department."

But we are told that there is room enough at League Island.

"The space upon the old League Island is some two hundred and sixty acres; upon the old and new, four hundred and ten acres; space which may be added in by additional embankment, about six hundred acres."

It is to be understood that the whole island, after the space spoken of above is "added in," will contain six hundred acres. We should think, however, that with a water front anywhere from one to six miles on the Thames river adjacent to the main, as much land might be obtained as could be had at League island. The Railroad Company have given their consent to the removal of the track to any line which shall best subserve the purposes of the Yard. But why will the turning of the Railroad from its present track be costly? The material obtained in grading for the track of the Railroad would all be wanted for filling in, enlarging and grading the ground for the Yard. The expense of removing the Railroad would be that of changing the track from its present location to the new one of a similar and already prepared grade.

To do strict justice to the Report we quote the following:

"The farming land, however, for the purpose of additional space in the yard, can be had at a probable moderate cost."

But it adds immediately:

"If the Railroad be allowed to pass the Yard."

Does this mean, if the Railroad be allowed to pass through the Yard? This is not expected. If it means that it be allowed to pass along outside of the Yard, and not far from it, this we should think would be a great convenience and benefit.

But to return to League Island. It would seem by the Report that two efforts have been made to reclaim League Island, by raising embankments or dykes around portions of it, and that there is now another "share which might be added in by additional embankments." And this appears to be the best feature which the Island presents, if it has any value per acre, that it is constantly enlarging. But may it not be feared that

a Navy Yard put here, or anywhere on the Delaware, would some day find itself away from navigable parts of the river?

No one will deny that the Report of Prof. Bache as Superintendent of the United Coast Survey for 1861, page 37, shows that such a result is not improbable.

Speaking of the "Hydrographic resurvey of the Delaware River," Prof. Bache there says:

"The first portion examined embraced the Delaware opposite to Philadelphia, and exhibits *marked changes* in the eastern channel abreast of the upper part of Camden; the bar from the upper end of Windmill Island *having formed* almost to Cooper's Point. The shoal formerly extending far below Windmill Island appears to have been much cut away. *Important additions to the wharves* are being made along the Philadelphia front. * * The second portion of the resurvey comprised the River between Red Bank and Billingsport, including the bar and the approaches to Fort Mifflin. Changes have been developed in this vicinity. * * The third portion of the river resurveyed was between Newcastle and Reedy Point, including the bulkhead shoal, and the approaches to Fort Delaware. Part of the shoal between Delaware City and Pea Patch Island has been cut away, and important changes appear to have taken place below the island. The small marshy patches known as *Goose Islands*, have disappeared."

Hear also what the majority say on the matter now in question. Page 5 of their Report:

"League island is a reclaimed marsh, surrounded by a dry stone wall and embankment of earth, raised to exclude the river. A portion of the island was reclaimed many years since, and is known as the old meadow; we have no positive information on this point, but presume that at the time the wall and embankment was built, all the land worth reclaiming was embraced within the enclosure; subsequently, and about eighteen years since, as we are informed the enclosure was extended so as to embrace an additional area, now known as the new meadow. According to a plan which has been submitted to the board by a committee from the Board of Trade, this old meadow contains 219 acres, and the new meadow 155 acres. On the north of the island, and between it and the main, there is a channel which, we are told, was of sufficient depth in former days to float large ships of war; now it is a narrow and shallow channel, not sufficient to float vessels of any size used by the navy. Large areas of marshes have formed on the east and west ends and on the north side of the island, and the whole appearance indicates a constant and rapid accumulation from the immense deposits of the Delaware river.

"The currents at New London are not rapid, the water is clear, and there is

nothing to be apprehended from deposits at this place after the lines of wharves have been established and the wharves constructed.

"At League Island the currents are more rapid; the water of the Delaware dirty, holding a large quantity of earthy matter in solution, which is deposited in various points along the river, as shown by the immense accumulation which has taken place within a few years at League Island, and which is still in progress."

Let us hear the minority on the same point. Page 18 they say: They, (the currents at League Island) make a deposit below the point fixed by us as the southern termination of the site for the Navy Yard."

We do not know where the point is. But we do know on the testimony of the most experienced seamen, well acquainted with its navigation, that pilots on the Delaware, if absent from their business a year or two, are no longer competent to take a vessel up or down the river, because the channels and shoals are undergoing such constant changes. Cherry Island Flats, below Marcus Hook, formerly an island, has been for several years submerged and entirely out of sight. The ship channel above the Pea Patch, 40 miles below League Island, is nearly two miles to the westward of where it was fifteen years ago, and has taken the place of flats on which the water was then not more than three feet deep. The ship channel formerly running on the north-easterly side of the Pea Patch Island, on which Fort Delaware is built, has changed so as to run on the westerly side.

From the changes which are thus constantly going on in the Delaware River and Bay, bars being formed, channels being shifted, islands being enlarged or disappearing altogether, we should think it somewhat difficult to find a permanent site for a Navy Yard in its waters, or one where its relative position to navigable parts of the river could be depended upon. We have before seen that the Delaware has not sufficient *depth* of water for large *wooden* vessels, and much less for an iron clad navy.

The Report, as will be seen below, three times repeats a statement which we unhesitatingly declare to be—a *mistake*.

After admitting, page 16, that the foundations of heavy work at League Island must be piled, it says:

"Those at Winthrop's Point must be cut down from a high gravel hill, forty, sixty, or a hundred feet high."

Don't say so

Again page 17 :

"The site near Winthrop's Point rises abruptly from the water to a hill forty, sixty, or a hundred feet in height."

And still again on page 21 :

"The site at Winthrop's Point rises to piles of gravel, or rock, forty, sixty, or one hundred feet, according to extent of front."

In reply to all this, we give below the results of an accurate survey of the premises, in which the respective elevations at the different points are given; 200 feet being the distance named by the United States Engineer of the Board who examined the site, for the removal of the Railroad west, in order to give ample room between it and the river.

NEW LONDON, Dec. 21, 1863.

The land known as Winthrop's Neck, lying east of the New London Northern Railroad track has a water front of three-fourths of a mile. Its highest point of elevation above high water mark is twenty-two feet. It is a plain gently sloping north and west. At its northern extremity it is ten feet above high water. The average height of the surface of this extended area, is about fourteen or fifteen above high water, and about nine or ten feet above the level of the Railroad. If the Railroad adjoining it were removed west 200 feet or more, little or no hill would be met with.

Commencing at the northern extremity of the above described section of land, at a point 200 feet west of the Railroad where it approaches the river, and running northerly in a line parallel with said Railroad, 4,000 feet or five-sixths of a mile, the height of the land at each successive section of 500 feet along the line, above the Railroad track, is as follows : 7 feet, 14 feet, 3 feet, 27 feet, 34 feet, 20 feet, 15 feet, 19 feet, averaging for the whole distance seventeen or eighteen feet. The Railroad track is five feet above high water.

From the last named point, northward for a mile, (making in all a water front of two and a half miles.) the land is nearly level with the track, and from 400 to 600 feet wide between the track and the river.

No part of the sections rises abruptly, but gradually ascends from the Railroad west. The portion of land between the Railroad and the shore is not, generally, higher than the track.

E. B. JENNINGS, *Surveyor and Engineer.*

To the New London Navy Yard Committee.

Where are the "piles of gravel, or rock, 40, 60, or 100 feet in height"?

Let us now hear what the majority say in their Report on the same head :

How about this survey?

"The site at Winthrop's Point, in the harbor of New London, is at a moderate elevation above the level which would be considered as a proper height for the surface of a Navy Yard."

Whose statement is correct?

The minority Report continues :

"The hills are of diluvial gravel, (hard) covering at greater or less depth, rocky ledges. The excavations will be difficult, and if rock is met by the piles on the mud flats, where it is proposed to place structures, or in the excavations inside the shore line, the work must be very expensive."

Of course they forgot what they said page 20 :

"Either site is adapted to the construction of Dry Docks, and other appurtenances of a Navy Yard."

"Either site." We object to the constant linking together of the two places. We prefer that New London should stand upon its own bottom, and let League Island stand upon its own, *if it has any!*

The minority Report continues :

"This is likely to be the case, as at a mile from the Point northward, a rocky ledge of about $55\frac{1}{2}$ yards by 139 yards, shows itself.

To show the looseness of the statements made in the minority Report, we have measured the cluster of rocks referred to, called Jacob's Rocks, and find it to be, at low water, just $23\frac{1}{2}$ yards by 55 yards—one sixth of the size stated.

We should hardly have taken the trouble to set so small a matter right, had not the Report put on the semblance of great accuracy by adding a fractional $\frac{1}{2}$ to the 55 yards.

As to rocks in the "mud flats," see Mr. Latham's letter in Pamphlet entitled, "Navy Yard at New London," in which he says :

"I have driven piles in every bridge of the Northern Railroad, between New London and Norwich ; also at the Railways for hauling up and launching vessels at Winthrop's Point, the proposed site for the Navy Yard. I have always found the mud shallow, and a permanent bottom without ledge or rocks."

Will the "excavations" be difficult? The following taken from the books of the New London Northern Railroad Co., showing the expense of removing from the very site of the proposed Yard on Winthrop's Neck, gravel and stone to en-

large their wharf at New London; the cars and motive power being furnished by the Railroad Company :

" 11,916 cubic yards earth at 10 cents,.....	1.161 60
867 " " stone at 20 "	173 40

The majority say on this subject, page 5 :

" The excavation for the Norwich railroad in the rear of this Point, (Winthrop's) show that it is free of ledge, and is a gravel of excellent quality, and easy to be removed. This bank can be graded at very moderate cost, and will furnish the best of material for filling low places, and extending the surface of the yard over such portions of the cove above as may not be required for occupation by docks and basins, thus accomplishing two objects at the same time. Other portions of the site will furnish abundance of stone of excellent quality for the construction of rough walls and foundations for the various buildings."

The gentlemen of the minority are very hard to be satisfied. Concerning " excavations made inside the shore line," if it could be proved that no rock was to be found in making such excavations, would not that have been made an objection? We should have doubtless heard much about the expense of *hauling stone from a distance*, &c. The Report does concede that good foundation stone may be had at *less than a mile* from Winthrop's Point. Why then raise it as an objection that " rock" may be found "inside the shore line," on the premises?

We forget to whom the world is indebted for the following lines :

" They wire in, and wire out,
And leave the observer still in doubt
Whether the snake that makes the track,
Is going south or coming back."

A remarkable statement occurs on page 16 of the minority Report.

" The surface of League Island is on an average 36 feet above mean low water, and 2.4 below mean high water."

According to this there must be a rise and fall of tide at League Island of 88.4 feet! But page 17 they say, the mean range of tide is about 5.7 feet at League Island. Without doubt this is the first time that League Island was ever lifted so far out of the water!

*From all over he gets
a remarkably little*

Let us hear what the majority say on the subject, page 6:

"To raise the surface of this island to a height which would render it safe from the encroachment of high tides, will require a filling of from nine to ten feet over the whole area."

Now as five feet above mean high water is considered the point on which superstructures can be safely placed, League Island, it would appear, is from four to five feet below mean high water mark. Such is the fact, and were the dykes around it removed, at each rise of the tide it would be four feet or more *under water*, and as the tide often rises to a greater height, then it would be submerged to a still greater depth, thus increasing, perhaps, the extent of anchorage at League Island. *sitting facts.*

A pretty place for a Navy Yard!

The Report says page 20:

"Winthrop's Point must be cut down, and League Island possibly (though not necessarily) in part raised."

Now we ask whether the surface of League Island must not *necessarily* be raised, or the island be in danger of being overflowed, or disappearing altogether, as the "*Goose Islands*" did a little further down the river? Certainly it must, unless our friends of the minority shall in some way set their arithmetic at work to save the expense of doing so.

A Philadelphia correspondent of the New York Herald writing to that paper under date of July 24, 1862, before the Board had decided in favor of New London, thus speaks of League Island:

"This tract of land was formerly marsh; at every rise and fall of the tide it would be covered and uncovered. Its productions were reeds upon which gunners, during the reed bird season would bag their game in the manner peculiar to gunners, by paddling a boat in among the reeds. * * * Every one who has visited this spot knows full well that not a building can be erected or a ship built until it is piled; and also that millions of loads of dirt will be required to raise this miry island of six hundred acres ten feet over its whole surface. * * * It will take the lower end of Camden County, New Jersey, to raise it high enough to keep it from an overflow, as any one will freely admit that a navy yard should be above the level of the water at high tide."

Winthrop's Point, says the Report, *must be cut down!* Now

Camden, N. J. is a swampy place

suppose League Island must be *filled nine or ten feet*, as the majority say it must be, above its present level, then Red Bank or some other bank at a distance, out of the State, perhaps, "must be cut down" to supply the material for filling it. Is there any greater objection to cutting down Winthrop's Point, which is adjacent to and itself forms a part of the site? From Red Bank, the nearest source of supply, the material would have to be carted to vessels and then transported across the water to be again distributed at different points over the Island. The cost of doing all this could not fall short of one dollar per cubic yard, and it might exceed it. At this rate it would cost to fill two hundred acres ten feet above its present surface, about three millions of dollars, and to fill up the whole island, about nine millions, and this without taking into account the water portion of the site to be filled. On this last point the majority say :

"If, as has been suggested, a line of wharf front be carried out, to the 23 feet line, it will involve an additional filling of a space one mile long, and averaging 481 feet wide, and 19 feet deep."

At the same rate per cubic yard, here will be an additional cost of about \$1,700,000, making in all an aggregate of \$10,700,000 for the filling merely. Nor in this estimate have we taken into account the cost of the material at Red Bank, which may be considerable, as there is no other place where it can be obtained with equal convenience, *except it be slag* / from the "puddling furnaces of Philadelphia," spoken of page 16. We have thus far only taken into account the expense of filling up League Island to the requisite height, viz : five feet above mean high water, and this is exclusive of the vast amount of piling around the Island and upon it, which would have to be done before any wall or superstructure could have a foundation to rest upon.

Suppose then that a wall, as before suggested, one mile long were to be built in front of League Island, what would be the cost? It has been estimated by a competent Engineer, that a row of piles sixteen feet wide and a mile in length, driven and covered with a solid timber platform below low water mark, to

sustain such a wall, would not cost less than \$250,000, and that the wall itself, raised fifteen feet above the platform, including the stone and their transportation to League Island, would not cost less than \$1,000,000 more. And what, we ask, would prevent the great weight of the filling (the depth of mud on the Island even, being from 56 to 25 feet,) from pressing out these piles, undermining the wall, and letting all out into the Delaware river, to obstruct navigation it may be, or to form new islands in the room of those which have lately disappeared! In the judgment of the best Engineers, such a result is not improbable. Would anything short of driving piles over the whole island make it safe? Certain it is that before any building can be erected on the island, the foundations would have to be made by piling, as before described.

Now as "150 acres" says the Report, "is the least quantity of land needed for such an establishment," it will not take many figures to show what would be the expense of piling that quantity of land according to the estimate before adopted. It would be \$18,750,000. It may be said that the whole space will not be covered with buildings. Then let it be reduced to one quarter the space, and we have \$4,687,500 for the piling merely, which may not be raised above low water mark, leaving at least twelve feet in height, of foundation stone work to be built upon these piles before the level of the ground is reached for the commencement of the edifices, the expense of which we leave others to estimate.

It is amusing to observe the reasons assigned, page 15 of the Minority Report, for the Thames river not freezing:

"Probably by the water being salt."

Probably the *depth of the river* has something to do with its not freezing. But the reason given by the minority is a very different one from that given in a Report made to the Government in 1838. The peculiar fitness of the River Thames for a Navy Yard did not fail at that time to attract attention. We make the following extract from American State Papers, Vol. 7, p. 766:

*It is a wonder the Allegany River has not
frozen. The land is all covered with
ice & frozen. The land is all covered with
ice & frozen.*

How when dry land dries
freezes over?

'The shore here presents a suitable and convenient space for erecting all the buildings, docks, launches, &c., required in such an establishment. The channel gives every facility for launching vessels. * * and as THAMES RIVER NEVER FREEZES, *probably in consequence of a number of springs which it receives under water*, vessels would have nothing to fear from the ice, and the communication between the Navy Yard and the ocean would be open at all seasons."

The following from page 19 of the minority Report is very significant :

"The cheap expedients for seasoning timber in fresh water yards render it unnecessary to resort to *ocean salt water* for seasoning."

The Report does not tell what the expedients are. But here would seem to be an implication that the water at New London is not salt enough for docking timber, and that therefore it has little or no advantage over League Island in this respect. Probably the authors of the Report would be willing to regard the two places, on this point, *as equal*. But why resort to *ocean salt water* for seasoning?

It will be admitted that the French understand the application of science to naval construction as well as any other nation, and their practice is to dock their timber for vessels in *salt water mixed with fresh* in about equal proportions. See Mr. Donald M'Kay's letter in Appendix, on this and other subjects connected with the Navy Yards of France. We also give the following extract from his report published in the *Boston Commercial Bulletin*, Jan. 3, 1863, made from actual visit, and thorough and careful inspection of her Navy Yards, Naval Depots, and public and private Dock Yards. He says :

"The Arsenal of Toulon, alone, contains upwards of 65,000 tons of the choicest oak timber. * * About 20 to 25,000 tons of this quantity are kept in *salt water mixed with fresh*, and the remainder is kept in store-houses."

It is usual to dock timber several years before it is put into sheds.

See also letter of J. & E. P. Beckwith, ship builders, in pamphlet entitled "Navy Yard at New London," in which the subject of docking timber is referred to. They say :

"Our Yard has been located for the last twelve years on the south-western portion of Winthrop's Neck. * * The water in front of our Yard is suffi-

elemently salt for docking purposes, and quite a portion of it is devoted to that purpose. Upper localities on the river, while they are better on account of nearness to material, are deficient in docking purposes on account of fresh water, for no ship yard can be carried on successfully without a good dock-yard."

On page 20 the minority say :

"The fresh water of League Island has little or no effect upon the iron of a vessel, while the salt water of Winthrop's Point corrodes the material more or less rapidly even when coated, and the coating itself is an expensive operation."

In reply to this, we would call attention to a pamphlet entitled "Navy Yard at New London," in which the question of fresh water is discussed, and in which it is shown that the river Thames is fresh a short distance above the proposed Yard, where its waters are sufficiently deep to float large ships, and only slightly brackish as compared with sea water, at the site itself above Winthrop's Point, and sometimes there for days and weeks, perhaps, entirely fresh ; also to the fact that a river empties into the Thames at Smith's Cove, from which by means of a Reservoir, now covering more than one hundred acres, at an elevation of about one hundred feet, and within little more than a mile of the site, fresh water can be brought to and over every part of the Yard, not only for supplying its ships and the various uses connected with such an establishment, but also for filling docks, to any extent, with fresh water, in which all the iron-clad vessels of our navy if necessary might be laid up when not in service on the ocean. Another use of this water suggests itself, which it may also be proper to mention, viz : as constituting a power for the working of much of the machinery of the Yard. The elevation being so great, the power to be derived would be immense, and the water after serving this purpose would pass off to keep the Docks replenished as before stated.

To show, however, that the waters of the Thames are not so destructive to iron vessels as the Report asserts, we give the proof annexed.

NEW LONDON, Nov. 11, 1863.

To the Navy Yard Committee :

GENTS :—I have been proprietor of the Marine Railways situated on Winthrop's point, for about twelve years, and not only are the timbers of which the ways are made, as sound to-day as when put into the water, being untouched

by worms, which are not found here, but the chains and bars of iron which have been under water, as far as I can see, are not worn at all by corrosion, but are as good now as they were twelve years ago, so far as the action of the water upon them is concerned.

EZRA S. BECKWITH.

NEW LONDON, NOV. 13, 1863.

The Brig Georgianna, now lying at our wharf, was iron-plated around the bows with plates four inches wide, and $\frac{1}{4}$ inch thick, in the year 1853. Since then she has made six voyages to Greenland, and seen much hard service among floating ice. During the ten years she has been owned here, she has been absent from port seven and a half years, and has laid up in this harbor two and a half years. The iron plating around the bows is still good, and though somewhat worn by chafing against ice, and rust, we do not propose to renew it.

WILLIAMS & HAVEN,

PR. R. H. CHAPELL.

The Report says page 20:

"The bottom of an iron vessel fouled by a sea voyage would be cleaned, and perhaps the grass be killed, by remaining at League Island anchorage."

So it would at New London anchorage.

As so much is made in certain quarters, of this question of fresh water, we propose here to examine into it a little more critically. We are more than willing to meet it fairly and squarely in the face. At the time the Board of Officers examined the site at New London, we were ready to concede on this point some little advantage, perhaps, to League Island. It was claimed that the water there was always entirely fresh. At New London it could not be denied, though sometimes fresh, that it was usually more or less salt. We had no knowledge then of the practical working of white zinc paint upon the bottoms of vessels, or of any other mode of obviating the supposed difficulty. Nor had it then entered into our minds that any requisite quantity of water might be brought from the large Reservoir in the vicinity, to which reference has just been made, for filling docks with fresh water in which might be floated an iron-clad Navy. And the "Board of Officers" themselves were willing to accord some preference in this respect to League Island. But we have taken pains to investigate the subject more

*What would it cost to
and build docks
for the Navy?*

thoroughly, and are prepared to claim for New London equal if not superior advantages to League Island in this respect. But it is evident that too much is made of this matter.

Read the certificate of Admiral Gregory of New York, to be found on page 16 of pamphlet entitled "Navy Yard at New London," and in which he says,

"I have for some time past been employed by the Navy Department as the general Superintendent of the iron-clad vessels under construction, and informed myself of the best means of preserving them from injury by the action of sea-water, and can from observation and experiment assert that white zinc will do so effectually. It amalgamates with the iron, and has a galvanic power that protects iron from oxidization by atmospheric influence, and a still more important one upon the immersed parts, preventing the bottom from fouling any more than copper. * * The evidence of these facts are numerous and conclusive from long observation and experiments, and do away entirely with the popular impression that vessels should be kept in fresh water for preservation."

Speaking of the launch of the great Frigate "Dictator," the New York Times of Dec. 28, 1863, after referring to the difficulties which some of our iron-clad vessels had experienced on account of their bottoms becoming foul, says:

"On the bottom of the Dictator, however, and all the iron-clads to be built thence forward, and most of the naval built vessels, a successful remedy has been devised, which will keep the bottom perfectly clear of filth. It is called "ship-zinc" paint, and is perfectly white in color. Some thirty years since a vessel was coated with it in England. She arrived here a few weeks ago and her bottom was found in perfect order. The Government has responsible parties furnishing the paint, and its purity can be relied on."

But we suppose that facts have far less influence than hypotheses with the Secretary of the Navy, since he reiterates in his recent Report his groundless surmises concerning fresh water! After many vessels had crossed the Atlantic propelled by steam, Dr. Lardner, who had once written a treatise showing the impossibility of their doing so, was still quoted as authority by a class of people with whom hypothesis was every thing, facts nothing; and this class of people—still live!

We return now to the examination of the comparative merits of League Island and New London as to fresh water and we shall meet it just as though there were no such thing as "white

the Philadelphia doesn't do any better than anything else. Several vessels had been in dock there.

Damned lie! better zinc on the bottom was the Dictator was given. she had not been there.

zinc" in the world, or any other means of preserving, or cleansing iron-clad vessels, except the waters of the Delaware river in Pennsylvania, and of the Thames river in Connecticut. We pit the Thames against the Delaware, making no note either in this place of the Reservoir for supplying docks with fresh water before spoken of.

It is admitted we suppose that iron or wooden vessels, unprotected by zinc, copper, or other material, will more or less foul their bottoms with marine plants, barnacles, &c., in salt water, if long exposed, especially in southern latitudes; and it is also admitted that grass, barnacles, &c., on such vessels will be killed if taken into fresh water, the two estates being so distinct, that if grown in the one they cannot subsist in the other. Now we assert and are prepared to prove by the concurrent testimony of all the ship carpenters, shipping merchants, and experts in the city, that upon any vessel coming from a sea voyage into the waters of New London harbor, opposite the city, these marine nuisances will be destroyed. This fact has been proved and tested times without number. See pamphlet entitled "Navy Yard at New London," pages 12 and 13, where this subject is referred to. Can League Island claim any thing more than this? But we have something more to say in behalf of New London. It is this. That while salt water nuisances will be effectually destroyed in the Thames River near Winthrop's Point, less foreign substances will form and attach to vessels lying in its waters than though they were entirely and always fresh, such as is claimed for the Delaware at League Island. For it is well known that vessels do foul in fresh water, though not as badly as in salt, and that such fresh water formations are destroyed by contact with salt water. Thus if a vessel is kept running for a considerable length of time in a fresh water river, some formations peculiar to that element will adhere to the bottom of such vessel; whereas if the same vessel should run into water both salt and fresh, alternately, it would not foul, from the fact that the incipient deposits of the fresh water would be checked or removed by the salt, and those of the salt water by the fresh.

So in the Thames River, at the site for the Navy Yard, where the water is constantly undergoing the changes referred to, owing to the direction of the wind, the state of the tide, and its condition as respects freshets, rains, &c, vessels would have all the advantage of a change of condition without a change of locality. Little opportunity would be afforded for either salt or fresh water productions to form upon them.

See in "Footprints of the Creator," page 33—35, Hugh Miller's beautiful description of "the Loch of Stennis," where a similar condition of things is found, and the effects thereby produced upon animal and vegetable life. Also see in Appendix, Prof. Silliman's letter on the same subject, and on the rusting of iron in the waters of the Thames River near Winthrop's Point.

The Thames formed by the junction of the Quinebaug, the Shetucket and Yantic rivers, narrows at Winthrop's Point to three-sixteenths of a mile, though it is much wider above—and this volume of fresh water, increased in its course by numerous streams and rivulets, coming down the river, meets and mingles with the salt water borne in by the tide, each contending with the other, but neither of them getting a permanent mastery. The rise of tide too at New London is so small only 2.5 feet, that the fresh greatly predominates above the Point, till it becomes entirely fresh farther up the river.

The minority Report says, page 19 :

"The extension of the horse Railroad to League Island, or the use of the steam tug as tow, will render it easy to live in the city, and work at the Yard."

Here will be an hour's time, twice a day at least, lost to the workmen, besides the expenses of the conveyance, all of which of course must be charged to the government.

The following from the Philadelphia Correspondent of the New York Herald, before referred to, will tend to set this point in its true light.

"Near every Navy Yard the workmen should reside. * * There are no houses nearer than three miles from the new Yard, (League Island) and before any can be erected, the land will require filling in ; or if the plan be adopted of taking the men down in boats, how will this work in winter when the river is

one half of the men in the
Brooklyn Yard live on the
four miles away —

gorged with ice? Probably they never took this into consideration. A Railroad will be started down South Broad Street; this will take sixty cents per week off the mechanic, or force him to tramp up and down six miles. Furthermore it will require a larger number of cars than any two Railroads in the city have, to carry down and up a force of workmen sufficient to do the work of a first class Navy Yard."

Suppose there were three thousand men employed at the Yard, at sixty cents per week for each one, the additional expense to the Government would be \$1,800 per week—nearly \$100,000 a year in this single item, besides the waste of so much time, which would have to be lost to the individual or to the Government, as it doubtless would be, in diminished labor.

The minority are candid enough to say, page 30 :

"There is probably not a healthier place in the United States than New London, or one where more comfort is to be found, and we should give it the preference as to health over League Island."

But they add :

"Believing that League Island is entirely healthy, we do not mean in this comparison to express any doubt whatever on this point."

So New London is *more than entirely* healthy !

We quote again from page 19 :

"On the extension of the city streets to the arm of the river back of League Island, are good building lots, where houses for the workmen may be placed. Upon Broad street, which is already so extended, are very good sites."

Very good water sites! for certainly the street itself has not only ditches of water, ten, twenty and thirty feet wide, each side of it, but an area of several acres of water sometimes occurs adjacent to it, at quite a distance from League Island.

The main land north of the island is dyked like the island itself, to prevent the river from overflowing it. Were this dyke removed these "very good sites" would be overflowed to the extent of thousands of acres, probably, lying between said island and Philadelphia.

Let us hear from the majority on this head, page 7 :

"Persons working in a Yard upon League Island, would be compelled to reside at a distance from their work, there being no houses in the vicinity or sites suitable for the erection of habitations."

They also say of New London :

"There would be great inducements for them (workmen) to resort to New

London, where house rents are remarkably low. Tenements can be had in the immediate vicinity, and the cost of living is moderate."

Page 18 they say, by way of showing the scarcity of Iron in Connecticut:

"The whole of the Salisbury iron would barely furnish one such establishment."

It is well known that Salisbury Iron in this State is of the very best quality. But is New London limited to that alone? See letter from Messrs Phelps, Dodge & Co., in pamphlet, "Navy Yard at New London," in which the sources and supply of iron is fully treated, and which they conclude by saying:

"We are very confident that as to variety of kinds and qualities, New London can, via New York, obtain such iron as the Government wants, as cheap as it can be got at Philadelphia."

Again page 18 they say:

"The price of iron and coal on the seaboard, generally as a rule, is its cost in Philadelphia with the freight to the place added."

The authors of this Report would seem to have Philadelphia in their eye, or on their "brain" constantly. Is the iron of Connecticut, Massachusetts, New York and Maine, from which States the best iron is obtained, first to be shipped to Philadelphia, and then be shipped back again to the several States from whence it came? How is it with the State of Pennsylvania even? We quote from the letter of Messrs. Phelps, Dodge & Co., New York, before referred to:

"We would say that the lines of Railroad now connecting Pennsylvania with this city, open to New York all parts of the State where iron is made, and enable manufacturers to deliver here as quick and in most cases as cheap as in Philadelphia. The Lehigh Valley, where now full half of all the Pig iron manufactured in the State, is made, is nearer New York than Philadelphia, and three-quarters of all the iron comes here."

The same is true of the best qualities of coal, as will be seen by letter from Messrs. E. A. Packer & Co., New York, in pamphlet entitled "Navy Yard at New London," from which the following is an extract:

"We think the difference in the price of Anthracite Coal at present (between League Island and New London) would be about fifty cents a ton, but there can be no doubt but that the difference will be much less within two years,

54 miles from Phila. to New York
 87 " " Lehigh Valley
 B. M. Lehigh

when the large improvements in progress of completion shall be finished, opening up new coal fields, which will have their outlet in the Bay of New York."

See pamphlet above referred to, in which it is clearly shown upon the best authority, that League Island has no advantage at all over New London, as to the cost of such iron as the Government wants, and very little as to coal. In view of the facts here stated, concerning the comparative cost of iron and coal at the two places, (New London and League Island,) the following corollary seems quite amusing :

The Report says page 27 :

"Hence the superior abundance and cheapness of coal and iron at League Island determines the site in its favor."

The premises failing what becomes of the inference? And just as though the extra cost of building a Navy Yard at League Island, where the very foundations are wanting—millions of loads of dirt to be transported across the river, and granite for hundreds of miles, and all to be placed upon piles without number, thickly driven into mud, varying, according to the minority Report itself, from 25 to 56 feet in depth—as though, we say, the extra cost of all this over that of a Yard built at New London, where the foundations are laid, and the requisite material at hand—would not amount to a sum, the interest on which alone would be sufficient to supply forever all the coal, and much of the iron used in such an establishment!

What now determines the site? Perhaps the following from page 17 of the Report:

"A fine opportunity for applying the new form of Dock building with concrete will be thus afforded. (!) The dock is made of concrete built by the aid of a coffer dam, in the water, and is a dam or box of a single stone, of concrete, which properly protected at certain points by wood or iron built with it, is almost as durable as stone." (!)

A fine opportunity to try an experiment! New form of dock building! Almost as durable as stone! Really, if the matter on which it treats were not an important one, affecting large national interests, the minority Report would at least provoke a smile and so do some good. If it be a new form, when was its durability tested?

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By the Sec. & Receiver General no.
by General.

1

When a timber foundation
was substituted in place
Stone

27

Now what are the facts in the case ? League Island is about 108 miles from New York by land, and there is no Railroad running within several miles of it. The distance between Winthrop's Point and New York is 124 miles, a Railroad connecting the two places, which is traveled in less than five hours. By water, the usual method of carrying freight, the distance is more than *twice* as great between League Island and New York, as between Winthrop's Point and New York, and the cost of freight is double as the rates will show, and of insurance more than double. Six steamboats, four of the largest class, and two built more particularly for carrying freight, and not much inferior to the others, are constantly running between New London and New York, loaded with freight and passengers, and they make their trips in seven hours ; while the time by water between New York and Philadelphia, is by steamboat about 22 hours, the navigation being much more difficult, and in the winter season obstructed by ice, or suspended altogether. The passage, too, is outside, around Cape May, while that between New York and New London is inland through Long Island Sound.

Has League Island any advantage as it respects distance from New York?

As to the defensibility of New London, which, as far as we know, was never questioned, until League Island was proposed for a Navy Yard—and the importance of a Navy Yard at New London, as affording incidental protection to Long Island Sound, its immense commerce, and numerous cities, including the city of New York, &c., see in Appendix letter from Gen. Dix, and also the letter of Gen. Wetmore, Chairman of the National War Committee of citizens of New York. Also see pamphlet "Navy Yard at New London," in which may be found letters from Gen. Cullum, Gen. M'Clellan, Col. Gates, and also Report of Gen. Totten, and others, on this subject.

Our examination of the minority Report is here brought to a close. We have endeavored to state nothing but what is either apparent to reason, or susceptible of the strictest proof, and on every point we court enquiry and challenge denial. It is this Report, full of errors, contradictions and absurdities, as it is, upon which the Secretary bases his judgment in favor of League Island? Or if not what is it?

Since the foregoing was in course of preparation, some things have come to light which shows to the country how great a debt of gratitude is due to those, who early seeing the entire unfitness of League Island for a Navy Yard, have steadfastly opposed its acceptance or adoption. Admiral Joseph Smith, Chief of Bureau of Yards and Docks, has now distinctly declared himself against it, and this after having recommended an appropriation of \$250,000 at the last Congress, "to commence operations by filling in the ground." See Ex. Doc. No. 45, referred to Committee of Ways and Means, and ordered to be printed, Jan. 23, 1863. And how wise was that Congress in not heeding the request, accompanied though it was, even, by a strenuous letter from the Secretary of Navy to Congress urging the same.

Admiral Smith in his recent Report, however, proposes a

place between Chester and Marcus Hook. He uses the following language:

This site is within the State of Pennsylvania, and I believe it well worthy a careful and thorough examination, and that the interests of the Government would be promoted by such an examination, before any definite action shall be had in reference to the acceptance of League Island as a Navy Yard. This opinion is based upon a cursory and superficial examination of the premises, and it may be, that a thorough and more careful survey might develop objections that do not present themselves at first sight. Still it would seem prudent to make such careful examination of a site which promises so well, before adopting a location for this important object, some of the objections to which are of so serious a character as to be at once discovered by the most superficial observer."

This may be a better land site than League Island. It could hardly be worse. But "within the State of Pennsylvania" there are no doubt thousands of better land sites than this even. But how is it as regards the water? There is nothing it is believed gained as to depth of water. The Wabash, as we have seen, was obliged to anchor three times after leaving Newcastle, some twenty miles below the site now named. And from the best information we have been able to obtain from those who are well acquainted with the navigation of the Delaware River, it has no preference at all over League Island, as to ice, but is even more objectionable. The river is straight, the current strong, and the whole body of ice coming down the Delaware must be encountered. Indeed, we are assured that there is no place at all between Newcastle and League Island where vessels can anchor in safety during the icy season. The iron-clad piers, we are told, have been broken down by it, near this locality, or if not, that the ice accumulates against them, and often in such quantities as to sweep over them like an avalanche. We have this upon the testimony of Captains who have sailed up and down this River for years.

Admiral Smith well says that "objections may present themselves," &c. There are vastly greater difficulties to meet on account of shallow water and ice in the Delaware, than are to be encountered at League Island, great and almost unsurmountable as they may be, on account of mud. For "19 acres of Red

See from

Bank" will fill "League Island over a space of 100 acres," (so say the minority, page 14,) and trees may grow if there is not enough now in the forests, in numbers sufficient to pile it. But the ice-king is not so easily dethroned or driven from his realm. And lack of depth in the river and bay is an insuperable objection to a Navy Yard, for the building and storing of the largest vessels. The Pennsylvania, if we rightly recollect, built in Philadelphia, was brought out of the river light, and with great difficulty.

We have a word of salutation for the Secretary of the Navy, who still so persistently holds on to League Island. In his recent Report he says "it is a question for Congress which instituted the enquiry, to decide whether an additional Navy Yard *on the old plan* is wanted at New London," &c. Where does the Secretary get his "*old plan*" from? Not from the act of Congress, for that was the same as respects each locality. Not from the Report of the board of officers made in favor of New London, for that fully took into account the wants of an iron-clad Navy. Where then does the "*old plan*" come from? Minerva it is said sprang from the brain of Jupiter,—*the old plan* no doubt sprung from the brain of the Secretary! And the world is not much the wiser for it.

But if a Navy Yard is wanted for immediate use as has been urged, why not carry out at once the decision of the board of officers, appointed under act of Congress to examine and report as to the comparative fitness of the different sites, and who have made report in favor of New London over every other locality; why not establish a Navy Yard where the hand of nature has laid the foundation, and the work already begun needs only the finishing touches of the hand of man to complete it? Where the public money could be counted that might be spent, and found after it was expended. Where the needful conditions are all provided—depth of water, a safe harbor, freedom from ice, ease of access to and from the ocean at all times, and where to every other consideration may be added, that of FRESH WATER, if that is desirable.

APPENDIX.

Letter from Major General John A. Dix.

HEAD QUARTERS, DEPARTMENT OF THE EAST, }
NEW YORK CITY, Dec. 17th, 1863. }

JOHN R. BOLLES, Esq.,

Sir :—Your letter of the 12th Nov. has been long unanswered in consequence of my incessant engagements.

I have been somewhat familiar with New London Harbor for many years, and have always regarded it as an excellent site for a Navy Yard, admirably fitted, from its position on the sound, its depth of water, and its defensibility. This impression was confirmed by the observations made by me on my recent tour of inspection, my attention having been specially directed to the subject, in connection with the protection of this city from naval attacks.

I am very respectfully yours,

JOHN A. DIX, Major General.

Letter from Gen. Prosper M. Wetmore.

NATIONAL WAR COMMITTEE OF THE CITIZENS OF NEW YORK; }
NEW YORK, Nov. 28, 1863. }

JOHN R. BOLLES, Esq., Cor. Sec. New London Navy Yard Committee.

Dear Sir :—Referring to a conversation recently had with you on the question of the defensibility of Long Island Sound, I am induced to trouble you with this communication.

During the whole period since the commencement of the rebellion, the public mind of this community has been awakened to the subject of the defences of our Harbor.

This Committee was organized under a resolution of the Citizens, in the month of August of the last year, and among the questions deemed most important for its action was that of the defences to our waters by the two entrances of Sandy Hook and the Sound.

The attention of the United States Government, as well as that of the State, had been mainly directed to the approaches by the way of Sandy Hook. At the period when a piratical cruiser was known to be on our coast, the one entrance by way of the Sound was utterly defenceless, while the other was dependent on fortifications, without armament adequate to the expected emergency. Fortunately the exigency was passed without an exposure of our weakness, but the danger was none the less imminent.

Under these circumstances, the Committee, nearly twelve months since, directed an examination to be made into the facts, with the view to the adoption of more efficient measures of protection. The report of that examination fully established the general allegation of inadequate means of defence against an aggressive war steamer by either channel. Since that report was made, the approach by Sandy Hook has been provided with greatly increased efficiency in the defensive works, and public confidence has therefore been strengthened in that direction. The entrance from the East River remains unguarded, or at least inadequately protected. The following passage from the Report referred to is very accurate at the present time :—

“ The passage through the East River channel, though usually regarded as of minor importance, is nevertheless just the avenue of approach which would be selected by a daring leader, reckless of danger and bent on achieving a bold dashing exploit. Yet this passage is scarcely protected at all. Fort Schuyler has about one third of its complement of guns mounted, but with no garrison drilled to act as artillerists, nor any supply of ammunition and other war materials, adequate to an effective defense ; and this is the sole fortification commanding the Eastern approach to the City of New York.”

Fort Schuyler is situated at the confluence of the tides from the Sound and the East River. The channel affords great depth of water, and the largest vessels pass freely through Hell Gate, now relieved by blasting, of most of its former terrors. The “ Great Eastern ” has made three passages through the Sound to Flushing Bay, eight miles from the City, while the armed vessels of the Russian Fleet reached our harbor by that entrance.

The interests of our City, as a local community, are not alone involved in this question ; the Commerce, coastwise and foreign, which finds an entrance by the Sound to this Metropolis, is of gigantic proportions and enormous in amount. The protection of this vast traffic affects interests extending along the whole coast of New England, the British Provinces and distant countries.

There can be no doubt that it is the duty of the Government to see that proper measures are adopted without delay, to render perfectly secure the navigation of these inland waters against aggressions of every kind.

My attention has recently been called to a proposition submitted to Congress, for the erection of defensive works at the Eastern entrance of Long Island Sound, and in connection therewith the establishment of a Navy Yard and Depot on the Thames River. I regard it as of infinite importance that this proposition should be adopted. No surer protection could be given to what is now an undefended entrance to this Harbor, than would be secured by a formidable work on Race Rock, and a Naval Establishment in that vicinity. *of Race Rock?*

I sincerely hope and cannot doubt that intelligent legislation, under the sanction of the Constitution, will speedily give to the great interests of this inland commerce the confidence and security which spring from the knowledge that the

protecting arm of the Government is extended over every public interest exposed to aggression.

Very respectfully, your ob't servant,

PROSPER M. WETMORE,

Chairman Select Committee on Harbor Defences.

Letter from Mr. Donald McKay.

BOSTON, MASS., Dec. 16th, 1863.

JOHN R. BOLLES, Esq.,

Sir:—In reply to your inquiry as to the quality of water best adapted for docking and seasoning ship timber, &c., I will state what is the practice of the French government, whose Dock-yards and Arsenals I have lately visited, and who are in advance of every other nation, in the application of scientific knowledge to naval matters. The stock of timber kept on hand in the French Arsenals, is very large and of the finest quality. At Toulon, alone, about 25,000 tons of the choicest oak timber, is kept in salt water mixed with fresh, about half and half. This fresh water is brought into the enclosed docks from reservoirs in the adjacent mountains.

The speedy decay of some of the boats built at private yards in England for the Crimean war, was ascribed mainly to the fact that the timber used in their construction was not properly 'seasoned.

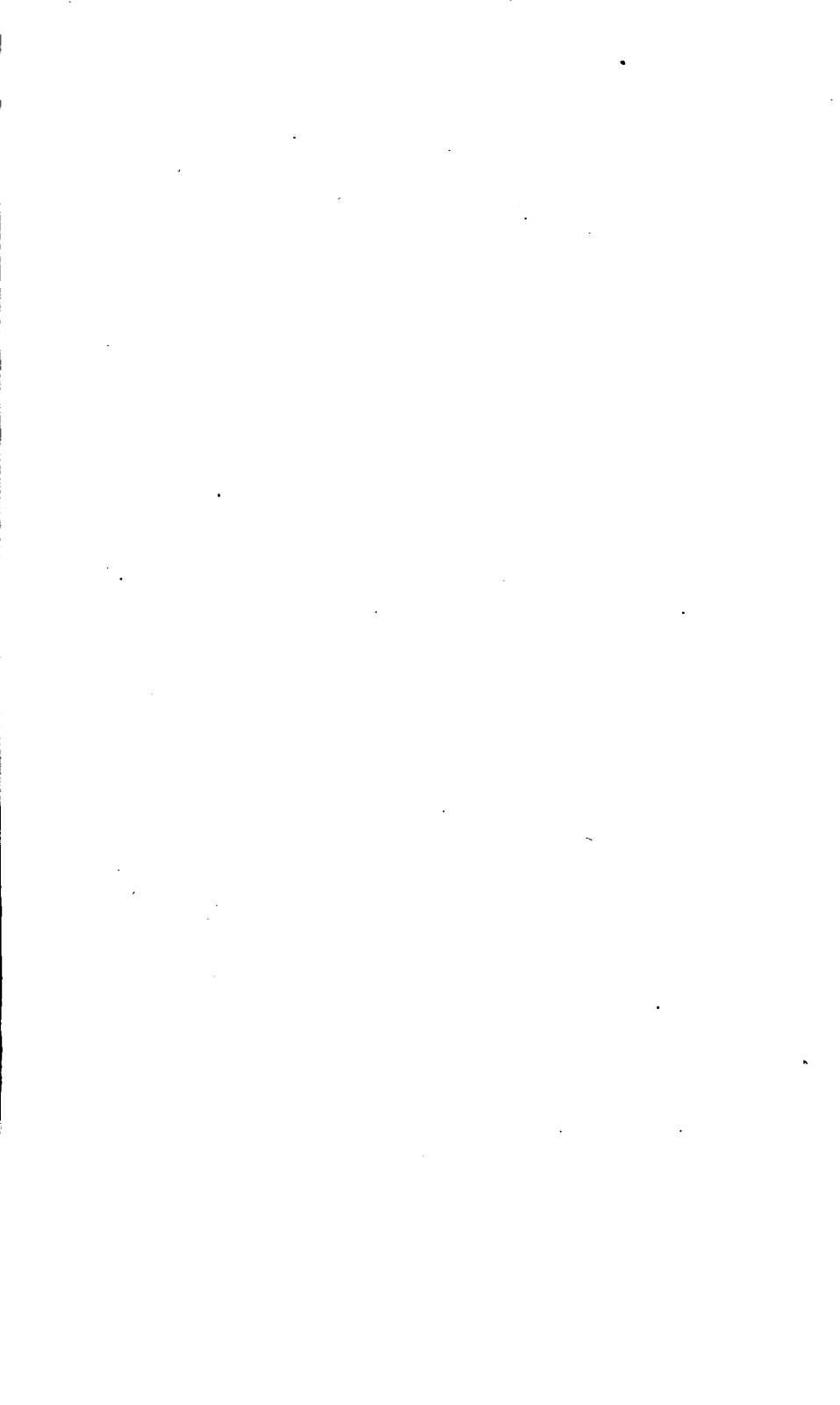
The French government provides for emergencies and keep a large quantity of ship timber docked, seasoned and ready for use.

For solidity, tensile strength and durability, the white oak which grows abundantly in Connecticut, is not excelled in the United States or the world. That which has been exported to England, has received the highest praise from the British Admiralty. To substantiate the durability and quality of our Connecticut and New England white oak, I refer to Mr. Delano, Naval Constructors, New York, Mr. Hanscom, at Boston, and Mr. Hanscom, at Norfolk, and Samuel H. Polk, at Portsmouth, and to Admiral Joseph Smith, of Washington, also, to Wm. H. Webb, and Jacob Westerfield, ship builders, New York.

It was the usual practice of our own government, until the commencement of this war, and which has proved to be most beneficial, to have all our timber docked in salt water for a number of years, before putting it into sheds, and our ships built of this carefully selected material, (well seasoned,) have proved exceedingly durable. It is a well known fact that New England built ships stand in our marine offices as well as at Lloyd's, London, for durability, ahead of any other ships built in the United States, and we appeal to Naval Registers at our yards, that economy in construction is strongly in favor of New England yards, and the farther south we go the expense of construction increases. We have also a great advantage in mechanics, there being a plenty of them and of the best class.

I will also say that in my opinion the site proposed for a Navy Yard on the Marsh Canoe Basin who has cut timber several days that the best timber is as good as any here and differs the timber of any other place.

Does the mean this class or the practice of the Govt. Timber in Phila St. Yards was kept docked in salt water. These ships built there are as good as any other Yards.



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